4. (Amended) The method according to claim 1, characterized in that operational and/or blood parameters are detected and controlled continuously.

5. (Amended) The method according to claim 1, characterized in that the infusion rates ($Q_s$pre, $Q_s$post) of the substitution solutions are chosen such that a substantially stationary limiting membrane is formed on the side of the membrane of the hemodialyser and/or hemofilter (20) facing the chamber through which the blood flows.

10. (Amended) The hemodialysis and/or hemofiltration apparatus according to claim 8, characterized in that the measuring devices comprise sensors (50) arranged in the extra-corporeal circuit (10) upstream and/or downstream of the hemodialyser and/or hemofilter (20) for the detection of the hematocrit value (HKT) of the blood.

11. (Amended) The hemodialysis and/or hemofiltration apparatus according to claim 8, characterized in that the measuring devices comprise sensors arranged in the extra-corporeal circuit (10) upstream and/or downstream of the hemodialyser and/or hemofilter (20) for the detection of the blood density.

12. (Amended) The hemodialysis and/or hemofiltration apparatus according to claim 7 characterized in that the means for controlling the at least one of the infusion rates ($Q_s$pre, $Q_s$post) are pumps (13,15) in the supply lines (12,14).

13. (Amended) The hemodialysis and/or hemofiltration apparatus according to claim 7 characterized in that the means for controlling the at least one of the infusion rates ($Q_s$pre, $Q_s$post) are valves in the supply lines (12,14).